AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1. (Currently Amended) A method for obtaining a transformed plant ~~based on~~ having a modified phenotype relating to a size or the organic acid composition of a storage organ of the plant, ~~characterised in that it comprises the following stage~~comprising the step of:

~~modification, in the cells of the storage organ or in the tissues supplying the storage organ, of~~ modifying the expression of a gene encoding an outward ~~rectifier~~ potassium channel in one or more cells of the [[said]] plant wherein the cells are selected from the group consisting of the cells of the storage organ and the cells in the tissues supplying the storage organ.

2. (Currently Amended) The method according to Claim 1, ~~characterised in that~~ further comprising the steps of:

transforming at least one cell of the plant ~~is transformed by~~ with the gene encoding the outward ~~rectifier~~ potassium channel,

selecting the at least one transformed cell ~~is transformed~~, and

regenerating a transformed plant ~~is regenerated~~ from the selected transformed cell.

3. (Currently Amended) The method according to ~~any one of~~ Claim[[s]] 1 ~~to 2~~, ~~characterised in that~~ wherein the gene whose expression is modified encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the ~~nucleotidic~~ nucleotide sequence encoding an outward ~~rectifier~~ potassium channel derived from Vitis Vinifera (VvSOR).

4. (Currently Amended) The method according to ~~any one of~~ Claim[[s]] 1 ~~to 3~~, ~~characterised in that~~ wherein the gene is over-expressed ~~in order to increase the size and/or modify the organic acid composition of the storage organ~~.

5. (Cancelled).

6. (Currently Amended) A transformed plant, ~~characterised in that it is~~ obtained by the method according to ~~any one of~~ Claim[[s]] ~~1 to 5~~ 2.

7. (Currently Amended) A method of selection of a plant ~~based on~~ having a modified phenotype relating to a size of the storage organs of the said plant and/or [[on its]] organic acid composition, ~~characterised in that~~ wherein the expression of a gene encoding an outward ~~rectifier~~ potassium channel of the plant in the cells of the storage organs or in the tissues supplying the storage organs is measured.

8. (Currently Amended) ~~Method~~ The method according to Claim 7, ~~characterised in that~~ wherein the gene whose expression is measured encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the

~~nucleotidic~~ nucleotide sequence encoding an outward potassium~~rectifier~~ channel derived from Vitis Vinifera (VvSOR).

9. (Currently Amended) The method according to ~~any one of the claims to~~ Claim 8, ~~characterised in that~~ wherein a quantity of ~~RNAm~~ mRNA derived from a transcription of the gene is measured, or a quantity of proteins resulting from the expression of the gene is measured.

10. (Currently Amended) The method according to Claim 9, ~~characterised in that~~ wherein the measurement of the quantity of ~~RNAm~~ mRNA is carried out during the development of the storage organs, and in that the measurement of the proteins is carried out during or after the development of the storage organs.

11. (Currently Amended) A cell of a plant, ~~characterised in that~~ wherein [[it]] the cell over-expresses a gene encoding an outward rectifier potassium passage whose ~~polypeptidic~~ polypeptide sequence has at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the ~~nucleotidic~~ nucleotide sequence encoding an outward rectifier channel derived from Vitis Vinifera (VvSOR).

12. (Currently Amended) A plant, ~~characterised in that~~ wherein [[it]] the plant over-expresses a gene encoding an outward rectifier potassium channel of the said plant whose ~~polypeptidic~~ polypeptide sequence has at least a 40% similarlty with a ~~polypeptidic~~ polypeptide sequence deduced from the sequence encoding an outward rectifier channel derived from Vitis Vinifera (VvSOR).

13. (Cancelled)

14. (Currently Amended) The use according to Claim 13, ~~characterised in that~~ wherein the gene encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the sequence encoding an outward rectifier potassium channel derived from Vitis Vinifera (VvSOR).

15. (Currently Amended) The use according to ~~any one of~~ Claim[[s]] 13 ~~to 14~~, ~~characterised in that~~ wherein the gene in the cells of the storage organ is over-expressed.

16. (Currently Amended) An antibody, ~~characterised in that~~ wherein [[it]] the antibody is directed against all or part of a polypeptide derived from the expression of a gene encoding an outward rectifier potassium channel of a plant.

17. (Currently Amended) The antibody according to Claim 16, ~~characterised in that~~ wherein the gene encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the sequence encoding an outward rectifier potassium channel derived from Vitis Vinifera (VvSOR).

18. (Currently Amended) A method for detecting the presence of all or part of a polypeptide resulting from the expression of a gene encoding an outward rectifier potassium channel of a plant in a sample comprising a mixture of polypeptides, ~~characterised in that~~ wherein it comprises the following stages:

putting the sample in contact with an antibody according to ~~any one of~~ Claim[[s]] 16 ~~to 17~~, and

detecting an antigen/antibody complex formed.

19. (Currently Amended) The method according to Claim 18, ~~characterised in that~~ wherein the gene encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the sequence encoding an outward rectifier potassium channel derived from Vitis Vinifera).

20. (Currently Amended) A kit for detecting all or part of a polypeptide produced from a gene encoding a potassium channel of a plant in a sample containing a mixture of polypeptides, ~~characterised in that~~ wherein it comprises an antibody according to ~~any one of~~ Claim[[s]] 16 ~~to 19~~.

21. (Currently Amended) The detection kit according to Claim 20, ~~characterised in that~~ wherein the gene encodes a ~~polypeptidic~~ polypeptide sequence having at least a 40% similarity with a ~~polypeptidic~~ polypeptide sequence deduced from the sequence encoding an outward rectifier potassium channel derived from Vitis Vinifera (VvSOR).